

Exercise 1 For each function, select all zeros of the given function. If there are none, do not select any options.

- (a) Let f be a function defined by $f(x) = x^2 + 9$. Select all zeros of f .

Select All Correct Answers:

- (i) 3
- (ii) -3
- (iii) 0
- (iv) 9

- (b) Let g be a function defined by $g(x) = -(x - 5)^2$. Select all zeros of g .

Select All Correct Answers:

- (i) 0
- (ii) -5
- (iii) 5 ✓
- (iv) 2

- (c) Let h be a function defined by $h(x) = x^2 - 3x - 4$. Select all zeros of h .

Select All Correct Answers:

- (i) -1 ✓
- (ii) 0
- (iii) 2
- (iv) 3
- (v) $\frac{4}{3}$
- (vi) 4 ✓

- (d) Let j be a function defined by $j(x) = -4(x + 3)^2 + 20$. Select all zeros of j .

Select All Correct Answers:

- (i) $-3 - \sqrt{5}$ ✓
- (ii) $3 - \sqrt{5}$
- (iii) $-3 + \sqrt{5}$ ✓
- (iv) $3 + \sqrt{5}$